



Space News Roundup

Vol. 33

May 6, 1994

No. 18

Budget hearings start

Station managers ready for Congressional votes

By Kari Fluegel

As Congress begins to focus on NASA's 1995 budget, International Space Station Program managers are ready for debates on the new, redesigned, orbiting laboratory and the plan that will put it in space.

"We have a viable program that we can deliver on time and within the funding plan," said Randy Brinkley, program manager. "The people here have done everything possible to enhance the probability

of success of the space station."

Next week, Congressional hearings will begin regarding NASA's Fiscal Year '95 appropriation, and the space station is expected to be in the spotlight.

Brinkley said he expects this year's station debates to cover a variety of areas, but focus on three primary issues — the participation of the Russian Space community, cost and affordability and the scientific value of the research on the

station.

Since the last time Congress voted on NASA's space station plans, the program has undergone several significant changes. The program was consolidated and reorganized with JSC as host center. Boeing was named prime contractor with responsibility for the subcontractors' work, and a new management structure was implemented using Integrated Product Teams to work issues with all par-

ties as they develop.

Perhaps, the most dramatic change, however, is the inclusion of Russia as an international partner in the space station.

Russian involvement will enable cost and schedule savings, earlier on-orbit research opportunities and increased science capabilities, Brinkley said. It also results in the station being a major component in the nation's foreign policy initiatives with Russia.

"With that status, we have the full backing of the White House, but we also are more likely to be affected by foreign policy decisions in the future," he said.

Construction of the station is expected to begin in December 1997 with human-tended operations beginning in June 1998 after the launch of the U.S. laboratory. Funding for the station is capped at \$2.1 billion per year, for a remain-

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Executive assistant appointed

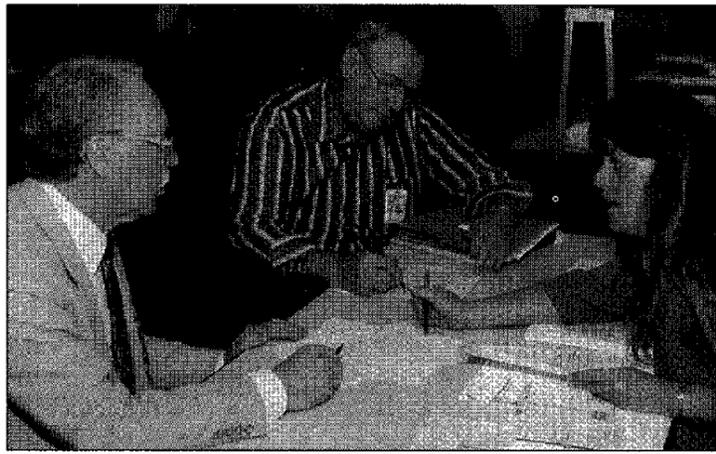
Susan Garman recently was named executive assistant to JSC Director Dr. Carolyn Huntoon.

In this position, Garman will share responsibility for managing the overall responsibilities for the center including institutional business of the center such as facilities, manpower, and fiscal and budgetary matters. She also will provide support to the director's office for participating in memoranda of understanding, reimbursable agreements and loan agreements. Garman also will support visits of high-level U.S. and foreign dignitaries and government officials to the center.

"Sue Garman brings a unique combination of experience to this position," Huntoon said. "She will be an invaluable addition to the staff of the Office of the Director."

Garman began her career in 1967 as an engineering aide in the Mission and Planning Analysis Division with Federal Electric Corporation and from 1983 to 1987, she served as director of administration for Hernandez Engineering. She joined NASA as a cooperative education student in 1987, earning a bachelors degree in accounting from the University of Houston in 1989. After working in a variety of roles in JSC's procurement office, she served as executive assistant to NASA Administrator Daniel Goldin, returning to JSC in 1993.

Garman's most recent assignment was with the Space Station Program's Procurement Office and the Office of the Director supporting organizational planning and transition.



JSC Photo by Robert Markowitz

Right: Center Director Dr. Carolyn Huntoon presents retiring Chief of the Security Division, Everett Shafer, with a memento of his 31 years of service to JSC. Huntoon made the presentation during Shafer's retirement ceremony April 29.



JSC Photo by Jack Jacob

Above: About 135 JSC employees participating in the government-wide buyout program processed their final exit papers through the Human Resources Dept. May 3. Another 66 employees left before April 29.

Columbia gets ready for next mission

By James Hartsfield

At Kennedy Space Center, technicians are preparing to load the next shuttle cargo — the second International Microgravity Laboratory — aboard *Columbia* this week in preparation for the launch of shuttle mission STS-65 in early July.

Preparations are progressing smoothly as the oldest orbiter in the shuttle fleet is readied for its 17th flight.

Technicians this week completed the installation of the drag chute and spacelab tunnel adapter, which will connect IML-2 with *Columbia's* cabin.

Other work included preparations to install the three main engines. Current plans call for *Columbia* to

be moved from the Bay 2 processing hangar to be mated with the STS-65 solid rockets and fuel tank in mid-June.

STS-65 will be commanded by Bob Cabana. Pilot for the mission is Jim Halsell. The crew will include Payload Commander Rick Hieb and Japanese Payload Specialist Chiaki Mukai along with Mission Specialists Carl Walz, Leroy Chiao and Don Thomas. The mission is scheduled to last 14 days.

While IML-2 was being moved to *Columbia's* hangar, *Endeavour*, fresh from space and next up following STS-65, was en route cross country back to Florida from Edwards Air Force Base in California.

Endeavour arrived at KSC

Monday morning after several weather delays. Piggyback atop the Boeing 747 Shuttle Carrier Aircraft, *Endeavour* departed California Friday afternoon and spent the night at Biggs Army Airfield in El Paso.

Saturday, the ferry flight departed Biggs, stopped at Dyess Air Force Base, Abilene, to refuel, and then stopped at Little Rock Air Force Base, Little Rock, Ark., to wait out the weather for the final leg of the flight.

The flight found good weather Monday morning for the final trip to KSC, arriving at the Shuttle Landing Facility about 9 a.m. central time.

Endeavour is now in the Bay 1 processing hangar where it will be readied for an August launch on

STS-68, again carrying aloft the Space Radar Laboratory. The second SRL mission will provide a different seasonal view of many of the areas imaged during April's 11-day SRL-1 flight.

Elsewhere at KSC, *Discovery* is in the Bay 3 hangar being prepared for a September launch on STS-64 to carry the Lidar in Space Technology Experiment, a laser radar that will make its first shuttle flight to study the atmosphere.

Work on *Discovery* this week included installation of the flash evaporator system, landing gear and thermal tile inspections, installation of the drag chute, and preparations to install the right orbital maneuvering system pod.



Photo courtesy of Pam Culpepper

NEW BEGINNING — Governor Ann Richards signs a check to fund the new Environmental Resource Center during a ceremony at the University of Houston - Clear Lake. Looking on is U.S. Rep. Jack Brooks and JSC Director Dr. Carolyn Huntoon.

NASA joins industry partners to create new Environmental Resource Center

By Eileen Hawley

NASA and private industry recently joined forces to create a new resource for researchers studying the environment.

The new Environmental Resource Center opened April 26 in the Clear Lake area, and will collect, organize and disseminate the volumes of environmental information currently contained in thousands of separate databases throughout the country.

JSC Director Dr. Carolyn Huntoon joined U.S. Rep. Jack Brooks, Governor Ann Richards and NASA Administrator Daniel Goldin at a ceremony held April 25 at the University of Houston - Clear Lake announcing the formation of the

Environmental Resource Center.

"We're going to work with this new partnership," Huntoon said. "It's going to take this community, this university, the Johnson Space Center, the State of Texas, NASA and private industry to make this a success. This is the sort of partnership that we need today."

The data available at the ERC was developed and collected by more than 20 different federal, state and local agencies, private organizations and universities. However, before the ERC, there was no central point where the information was collected or organized.

By consolidating the information currently contained in these different

databases into an integrated system, the ERC provides a central location for users to access environmental data, and allows data and technology applications to be shared among previously incompatible data sources.

"The business of space exploration is about the extension of human knowledge," Huntoon said, "and I believe this Environmental Resource Center will expand our knowledge far beyond what we can imagine today."

As the center matures, it will broaden its efforts from simply accessing information to providing complex data integration and real-time monitoring.

JSC

Ticket Window

The following discount tickets are available for purchase in the Bldg. 11 Exchange Store from 10 a.m.-2 p.m. Monday-Thursday and 9 a.m.-3 p.m. Friday. For more information, call x35350 or x30990.

Astroworld Tickets: Tickets available for May 6. Admission from 6 p.m. to midnight. Cost is \$12.95. Receive a free Waterworld pass upon entrance.

Astroworld Early Bird: Tickets available for one-day admission for 1994 season. Cost is \$16.75 per person. Tickets must be purchased by May 31.

Home Tour: Tickets available for the Galveston Home Tour May 7, 8, 14, or 15. Cost is \$13.75. Karate Championships: Tickets available for the May 14 National Karate Championships at the Astroarena. Cost is \$12.50 for general admission, \$20 for ringside.

Seaworld of Texas: Discount tickets: adult \$20.95; child (3-11), \$14.25.

Fiesta Texas: Discount tickets: adult \$18.95; child (4-11) and seniors (55+), \$14.25.

Moody Gardens: Discount tickets for two of three different attractions: \$9.50

Space Center Houston: Discount tickets: adult, \$7.95; child (3-11), \$4.75; commemorative, \$9.55.

Metro tickets: Passes, books and single tickets available.

Movie discounts: General Cinema, \$4.75; AMC Theater, \$4; Loew's Theater, \$4.50.

Stamps: Book of 20, \$5.80

JSC history: Suddenly, Tomorrow Came: A History of the Johnson Space Center, \$11.

Upcoming Events: 7-day Caribbean cruise Oct. 29-Nov. 5. A video preview will be held at 5 p.m. May 11 in Rm. 216 at the Gilruth Center. For additional information, contact x34037.

JSC

Gilruth Center News

Sign up policy — All classes and athletic activities are first come, first served. Sign up in person at the Gilruth Center and show a NASA badge or yellow EAA dependent badge. Classes tend to fill up two weeks in advance. Payment must be made in full, in exact change or by check, at the time of registration. No registration will be taken by telephone. For more information, call x303304.

EAA badges — Dependents and spouses may apply for photo identification badges from 6:30-9 p.m. Monday-Friday; 9-11 a.m., 1-3 p.m. and 6:30-9 p.m. Wednesdays; and 8 a.m.-4 p.m. Saturdays. Dependents must be between 16 and 23 years old.

Weight safety — Required course for employees wishing to use the weight room is offered from 8-9:30 p.m. May 18. Pre-registration is required. Cost is \$5.

Defensive driving — Course is offered from 8:15 a.m.-3 p.m. Saturday. Next class is May 14. Cost is \$19.

Aerobics — High/low-impact class meets from 5:15-6:15 p.m. Tuesdays and Thursdays. Cost is \$32 for eight weeks.

Exercise — Low-impact class meets from 5:15-6:15 p.m. Mondays and Wednesdays. Cost is \$24 for eight weeks.

Aikido — Martial arts class meets from 5-7:30 p.m. Tuesdays and 6:15-8:15 p.m. Wednesdays. Black Belt class from 6-8 p.m. Fridays, requires instructor permission. Cost is \$25 per month.

Sailing Club — Sailing lessons are planned for May and June. For information, contact Richard Hoover at x31360 or 996-7716.

Golf lessons — Lessons for all levels. Cost is \$90 for six weeks. For additional information, contact x33345.

Softball tournament — Softball tournament will be held May 21 and 22. Cost to register is \$100 per team. Registration deadline is 7 p.m. May 18.

Basketball tournament — Three-on-three basketball tournament is June 4. Cost to register is \$40 per team. For additional information, call x33345.

Fitness program — Health Related Fitness Program includes a medical examination screening and a 12-week individually prescribed exercise program. For more information, call Larry Wier at x30301.

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Dates & Data

Today

Cafeteria menu — Special: fried chicken. Total Health: vegetable lasagna. Entrees: broiled cod fish, beef stroganoff, vegetable lasagna. Vegetables: steamed broccoli, carrots vichy, Italian zucchini, breaded okra.

Monday

Cafeteria menu — Special: meat sauce and spaghetti. Total Health: potato baked chicken breast. Entrees: wieners and sauerkraut, sweet and sour pork chop, potato baked chicken, steamed fish, French dip sandwich. Soup: cream of asparagus. Vegetables: French cut green beans, seasoned rice, California vegetables, buttered beans.

Tuesday

Blood drive — Rockwell will host a blood drive from 8-11:30 a.m. May 9 and 1-2:30 p.m. in Civic Rms. A & B located at 600 Gemini. For additional information, contact Liz Hernandez, 282-3418.

Cafeteria menu — Special: smothered steak with dressing. Total Health: shrimp creole over rice. Entrees: beef stew, liver and onions, shrimp Creole, baked chicken, French dip sandwich. Soup: navy bean. Vegetables: steamed rice, seasoned cabbage, corn O'Brien, peas, potatoes au gratin.

Wednesday

Astronomy seminar — The JSC Astronomy Seminar will meet at noon May 11 in Bldg. 31, Rm. 129. For more information, call Al Jackson, 333-7679.

PSI meets — The Clear Lake/NASA Area chapter of Professional

Secretaries International meets at 5:30 p.m. May 11 at the Holiday Inn on NASA Road 1. For additional information, contact Elaine Kemp, x30556 or Diana Peterson, x30390

Cafeteria menu — Special: salmon croquette. Total Health: vegetable plate. Entrees: roast pork, baked perch, steamed fish, vegetable lasagna, Reuben sandwich. Soup: seafood gumbo. Vegetables: mustard greens, okra and tomatoes, vegetable sticks, lima beans.

Thursday

Russian speakers — Practice Russian language skills from 11 a.m.-1 p.m. May 12 in the Bldg. 3 cafeteria. For more information, call Jack Bacon, x38725, or Amy Mendez, x38066.

Cafeteria menu — Special: stuffed cabbage rolls. Total Health: oven crisp cod. Entrees: beef tacos, ham and lima beans, pork and beef egg rolls, steamed fish, French dip sandwich. Soup: beef and barley. Vegetables: Brussels sprouts, green beans, buttered squash, pinto beans.

Friday

Cafeteria menu — Special: baked chicken. Total Health: roast beef au jus. Entrees: deviled crab, Creole baked cod, baked chicken, beef cannelloni, Reuben sandwich. Soup: seafood gumbo. Vegetables: seasoned carrots, peas, breaded okra, steamed cauliflower.

May 18

IEEE meets — The Galveston Bay Section of the Institute of Electrical and Electronics Engineers will host a videoconference on "Revolu-

tionary Concepts in Human/Computer Interaction" beginning at 11 a.m. May 18 in the Gilruth Center. For registration and other information, contact Frankie Hap, 333-6064.

Aerospace symposium — The 28th annual Aerospace Mechanisms Symposium will be held May 18-20 at Lewis Research Center. For more information, contact Ed Boesiger, (408) 743-2377.

Astronomy seminar — The JSC Astronomy Seminar will meet at noon May 18 in Bldg. 31, Rm. 129. For additional information, call Al Jackson, 333-7679.

May 19

Russian speakers — Practice Russian language skills from 11 a.m.-1 p.m. May 19 in the Bldg. 3 cafeteria. For additional information, call Jack Bacon, x38725, or Amy Mendez, x38066.

May 24

Blood drive — McDonnell-Douglas will host a blood drive from 8-11:30 a.m. May 24 at 16055 Space Center Blvd. For additional information, contact Teresa Esquivel, 212-5036.

May 25

Astronomy seminar — The JSC Astronomy Seminar will meet at noon May 25 in Bldg. 31, Rm. 129. Al Jackson will speak on "Comet Shoemaker/Levy Hits Jupiter in July." For additional information, call Al Jackson, 333-7679.

May 30

Memorial Day — Most JSC offices will be closed in observance of the Memorial Day Holiday.

Swap Shop

Swap Shop ads are accepted from current and retired NASA civil service employees and on-site contractor employees. Each ad must be submitted on a separate full-sized, revised JSC Form 1452. Deadline is 5 p.m. every Friday, two weeks before the desired date of publication. Ads may be run only once. Send ads to Roundup Swap Shop, Code AP3, or deliver them to the deposit box outside Rm. 147 in Bldg. 2. No phone or fax ads accepted.

Property

Sale: Bay Forest patio home, 3-2-2, all upgrades, cul-de-sac, \$150k. x33075.

Sale: Townhouse, 2-2.5-2C, sec, 24 hr guard, club atmosphere, lake view. 474-2339.

Sale: Friendswood, 4-2.5-2T, 2137 sq ft, lg living area, FPL, jacuzzi in master bath, formal DR, ceiling fans, sec sys, 2 yr old, cul-de-sac, \$105.9k. 992-1466.

Sale/Lease: Clear Lake Shores, 3-1, 1 blk from Clear Lake, owner financing possible. 538-1849.

Sale/Lease: Freeway Manor 3-1-1, fenced back yard, ceiling fans, appliances, \$40k or \$480/mo. Bill, 332-3649.

Sale/Lease: Egret Bay condo, 2-2, W/D, mirror, tile. \$45k or \$550/mo. 643-3406.

Lease: Middlebrook II, 3-2-2, fenced, FPL, garage door opener, ceiling fans, good cond, \$850/mo + dep. 486-8551.

Lease: El Lago 3-2-2, patio, FPL, ex cond, \$895/mo. x37598 or 333-9777.

Sale: Point Blank, TX, 1.9 acres, 7 min from Lake Livingston. x37310.

Sale: Univ Trace 2-2.5-2C condo, FPL, W/D, refrig, up and down corner unit, \$53k. x32412.

Sale: Sagemont, 3-2-2, both formals, trees, lg den, new roof. Ben, x34339 or 481-1439.

Rent: Ski Wolf Creek, CO, house, sleeps 6, no smoking/pets. Bob, x30825 or 998-7372.

Rent: Crystal Beach beach house, dly/wkly, CA/H, furn. 485-1730.

Sale: Baywind II condo, 1 BR, FPL, W/D conn, newly redecorated, \$27.5k. John, 333-4114 or 333-4144.

Sale: Heritage Park, 3-2-2, remodeled, ex cond, covered deck, storage, \$69.9k. x40213 or 332-7092.

Sale: Cypress Lakes, Cleveland, TX, 1 lot, owner finance, \$2k. Elaine, x36436 or 772-7933.

Lease: Seabrook, Baybrook Subdiv, 3-2-2, 3 yrs old, ex cond, avail late May, \$900/mo + dep. x36255, (617) 621-3985.

Sale: Bay Glen, 3-2.5-2, Jacuzzi bath, FPL, \$104k. Ruben, x47119 or 486-0817.

Lease: Nassau Bay TH, 4-2-2.5, 2000 sq ft, deck, lg garage, atrium, non-smoker. Jerry, x38922 or 488-5307.

Sale: Oakbrook West, 4-2-2, completely updated, lg yard w/trees, \$99.5k. Denise, x31846 or 486-5146.

Sale: Univ Trace TH, 2-2.5-1, \$64.9k. Herb, 481-1253 or 486-5181.

Rent: Arkansas cottage on Blue Mountain Lake, furnished, wooded, 4 ac, \$250/wk. x33005 or 334-7531.

Rent: Colorado condo, fully furnished, sleeps 6, low rates. 488-4453.

Rent: Galveston condo, furn, sleeps 6, Seawall at 61st St, wknd/wkly/dly rates. Magdi Yassa, 333-4760 or 486-0788.

Cars & Trucks

'86 Ford F150 PU, A/C, auto, radio, toolbox, \$1.8k. 481-0695.

'87 Nissan PU, gray, std, 70k mi, dented, runs great, \$1.7k OBO. 326-4453.

'85 Honda Accord LX, auto, pwr steering/locks, A/C, AM/FM/cass, low mi, new carb O/H fuel pump,

gray, ex cond, \$3250. Ray, x33954 or 487-4889.

'85 Subaru GL sedan, 4-dr, 5 spd manual, A/C, PS/PB, pwr door/locks, AM/FM stereo, new distributor/tires, red, ex cond, 120k mi, \$1.1k OBO. Tony, x38839 or 992-8669.

'90 Mazda Miata, red, ex cond, 47k mi, garaged, non-smoker, new convertible top, \$9.5k. Brian, 280-1747 or 338-2674.

'92 Ford Explorer, ex cond, 38k mi, leather int, alarm, pwr, non-smoker, \$18.9k. Sherry, x38607 or 338-2674.

'86 Nova, 4 dr, AM/FM/cass, sunroof, 167k mi, \$1k OBO. Dave, x45381.

'84 Dodge Caravan LE, A/C, auto, AM/FM, loaded, 5 passenger, 77k mi, ex cond, \$3.4k OBO. x38151 or 532-1100.

'91 Toyota Corolla DX, 4 dr, 39k mi, 4 new tires, auto, A/C, AM/FM/stereo, ex cond, \$7680. 333-7167.

'76 Datsun 280Z 2+2, 66k mi, some body rust, new tires, \$1.6k OBO. Gibson, x36224 or 488-6024.

'82 Camaro, A/C, auto, 2.8L V6, AM/FM stereo/cass, brown/beige, very clean, ex cond, low mi, \$2k OBO. 991-5280.

'87 Ford Crown Victoria LX, \$5k. Bill, 944-0985.

'91 Honda CRX, 5 spd, A/C, AM/FM/cass, 32-42 mpg, low mi, ex cond, \$899. Dale, x30432 or 481-0046.

'86 Toyota PU, ex cab, long bed, blue, PS, PB, A/C, 5 spd, \$4k. Kurt, x38753 or 334-4937.

'82 Ford Excort EXP, 2 dr, hatchback, pwr steering/brakes, AM/FM, auto, 92k mi, one owner, very clean, \$700. 282-3224.

'87 Nissan Van GXE, blue, 73k mi, dual A/C, ice/heat box, quad captains' chairs, \$7k; \$750 Nissan rebate coupon, \$600. Jeff, 482-5393 or 333-7010.

'64 T-bird, V8, auto, blue int, black ext, ex cond, \$4.5k. Foster, x40126.

Boats & Planes

'91 Cajun 18.5' center console bay boat, '93 135hp Mercury PT/T, Motorguide trolling motor, \$10.5k. Gary, x37069 or 534-3080.

15' Wellcraft, walkthru windshield, vinyl down seats/top, carpet, 50hp Johnson O/B, Big Wheel galv trlr, low hrs, ex cond. John, 488-4487.

'93 Proline 190, 115hp Yamaha, trlr, depth finder, live well, accessories, 20 hrs, ex cond, \$14.5k. Greg, x33444 or 489-3082.

'86 Bayliner Capri Bowrider Force 50, galv trlr w/ new jack & buddy bearings, depth fndr, skis/tow/vest, kneeboard, anchor, Coast Guard kit, life jackets, bumpers, oar, AM/FM radio, canvass top, new batt, 12-volt trolling mtr, two 2-gal tanks, ex cond, 50 hrs, \$2950. Ray, x33954 or 487-4889.

Boston whaler, used only in freshwater, ex cond, \$2.8k. Jeff, 337-2784.

Chaparral 187, 140hp Mercruiser I/O, SS prop, electronics, ex cond, \$5.7k. X37954 or 481-1605.

Chrysler 22' sailboat, sleeps 6, galley, head, fixed keel, 5hp O/B, main and 2 jibs, ex cond, slip in Clear Lake, \$2.5k. 282-1727.

18' fish/ski tri-hull, '83 90hp Evinrude, low hrs, pwr tilt/trim, galv trlr, \$2150, will price separately. Dan, x31716 or 488-3106.

Inflatable boat, 3-4 person, 5'x10', oars, foot pump, electric motor, \$875. 326-5150.

'93 Kawasaki Jet Ski, trlr, jet ski cover, life preservers, \$4.5k. x33818.

Cycles

'90 Yamaha four wheeler, Big Bear 4x4, ex cond, \$4k. Mike, x31798 or 585-2416.

10 spd bike, good cond, \$60. 488-4412.

'84 Suzuki GS1100GK touring bike, ex cond, 24k mi, \$2.7k. Jim, x38210 or 996-7854.

Audiovisual & Computers

Pioneer rcvr, 40 watt, cassette deck, Technics CD player, Realistic 10 band equalizer, Advent tower speakers, \$400. 941-5288.

Trade new \$1300 USRobotics 19200 bps V.32 turbo modem for Macintosh or Powerbook, upgrade to V.Fast. Tony, x47410 or 482-4156.

IBM compatible NEC-286 computer, 640k RAM, 44MB HD, 2 FD, 3.5" and 5.25", color monitor, kybd, SW, \$400. Earl Rubenstein, 480-1998.

Sherwood tuner, amp and KLH speakers, \$55. Charlie, 488-4412.

Sega game gear, AC adapter, rechargeable battery pack, Pacman, JM Football, Prince of Persia, Space Invaders, all ex cond, \$150. 286-8981.

Atari 1040ST, word proc, spreadsheet, many games, \$150 OBO. x41089 or 480-8335.

Nintendo, 4 controllers, entertainment center, 20 games w/instruction booklets, ex cond, \$200; 2 Pioneer 3-way speakers, stereo cabinet, ex cond, \$200 OBO. Allen, x38824 or 286-1124.

Photographic

Nikon F 35mm camera w/finder, case, 50 mm 1.4f and 200mm 4.0f, Roliflex TLR w/case, filters, Metz 45-CT-5 strobe, best offer. Ron, x30887.

Musical Instruments

Bradbury spinet piano, \$500. x33626.

Pets & Livestock

2 AKC Labrador Retrievers, one chocolate male, one black female, price neg. 947-2025.

5' Burmese python, 30 gal aquarium, screen cover, heat rock and stand, \$275. Jesse, x39564, pager 708-2745.

Will breed flashy, registered male Boxer for pick of litter. 992-3876.

AKC Siberian Husky female, 1.5 yrs, black/white, blue eyes, medical records, \$150 OBO. 991-5280.

Lab-mix female, neutered, all shots, 3 yrs, loving, gentle, smart, non-barker, free. Susi or John, 482-0647.

Household

Oriental rug, 6' x 9', light blue w/gold accents. Jeannette, x45752 or 992-5946.

Wards 27 cu ft side by side frig, almond color, ex cond, glass shelves, ice/water in door, \$450; 6' craft table w/cutting mat, drop sides, \$200. Sandi, x33854.

Kg sz bed, approx 7 yrs old, \$200 OBO. 488-0056.

White metal tubular bunk bed, full sz bottom, twin sz top, \$350; electric dbl oven/stove, \$50; high pwr microwave, \$75. Tony, x47410 or 482-4125.

End and coffee tables, rattan w/smoked beveled glass insets, \$70 ea. Karen, 282-4141 or 332-0898.

Dining rm table w/6 chairs, 2 yrs old, was \$700, now \$350 OBO; Panasonic dual cass stereo w/ speakers and cabinet, ex cond, \$150 OBO; Eureka upright vacuum cleaner, \$55 OBO. 992-1466.

Chest of drawers w/mirrors attached, desk, \$25 ea. 333-6456 or 480-8682.

Contemporary oak/glass dining table, 62" long by 41" wide, 2 18" extension leaves, 6 matching brown suede/oak chairs, matching brown suede/oak china cabinet, all in good cond, \$650. 326-2307.

Kg sz waterbed w/12 under drawers, needs heater, dk cherry wood, \$100. x35267 or 326-5207.

Pillow-back couch, blue/gray stitching, \$200. Marisa, x30269.

Lg coffee and end tables, pecan wood, smoke mirror inserts on top, \$75 ea. 480-2444.

Sofa and love seat, cream w/pale neutral colors, unused, was \$1k now \$600. Susi or John, 482-0647.

Dining rm set, table, 6 chairs, hutch, \$1.8k. Tony, x35966.

Two 6-drawer chests, \$45 and \$35; 1 3-drawer chest, \$25; 2 pr drapes, \$10 ea; rods \$5 ea; 2 folding doors, \$8 ea; 1 oil painting, 2' x 3', \$20. Billie, 333-3425.

Qn sleeper sectional sofa, multi-color brown tweed, ex cond, was \$1k, now \$400; oblong redwood patio table, 62" L x 43" W, 2 chairs, \$175. 486-1177.

White washed pine, Southwest style, étagère, \$150. 474-7883.

Mikasa Imperial Lapiz china, 5 pc place settings, \$65 ea; lg oval platter, \$110. 480-2584.

Kenmore electric dryer, white, approx 5 yrs old, \$150. 480-2584.

Sealy qn sz mattress, box springs/frame, \$175; sofa, 92", white, contemporary, ex cond, \$200; matching love seat, \$100; oak coffee table

Reaping Record Data

STS-59 crew brings back new perspective



Their job was to record the Earth below, whether by videotape, by film or still photograph, or by hand-written notes. And the crew of *Endeavour* brought back mounds of images and observations that will help scientists studying the Space Radar Laboratory-1 data understand what it all means.

Clockwise from top:

1) *Endeavour's* crew poses for its traditional crew portrait, with Old Glory in the background, on the middeck. Front, from left: Mission Specialist Jay Apt, Commander Sid Gutierrez, and Mission Specialist Tom Jones. Back, from left: Pilot Kevin Chilton, Payload Commander Linda Godwin and Mission Specialist Rich Clifford.

2) Jones works with one of several laptop computers used onboard during the flight as it is anchored to the airlock hatch. This Payload General Support Computer was used to transfer data and messages to and from the ground by way of the Portable Audio Data Modulation modem.

3) Clifford gets a workout using a rowing machine that was being tested on this flight. Many kept up their cardiovascular conditioning using the rowing machine during the 12-day mission.

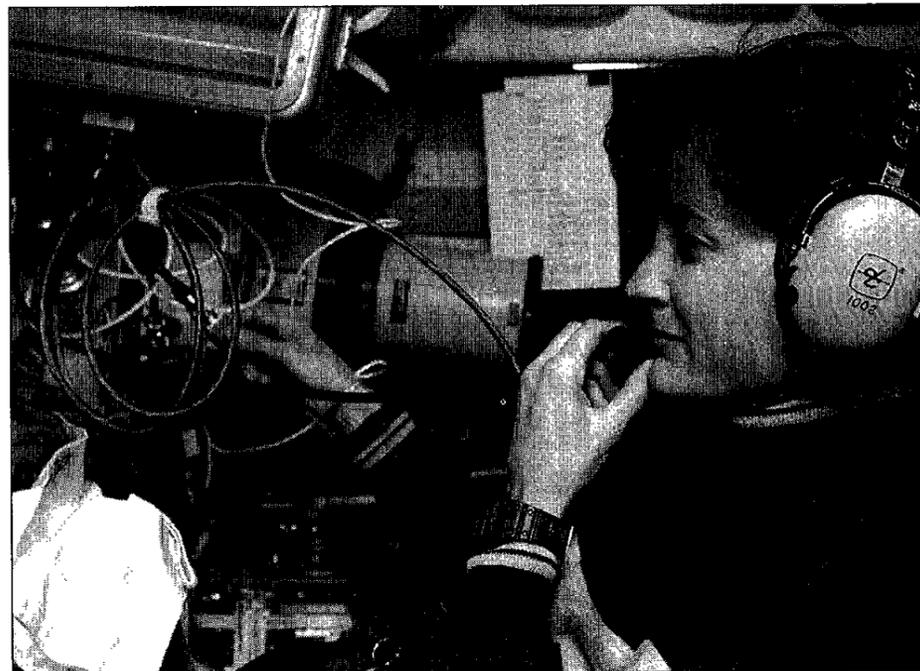
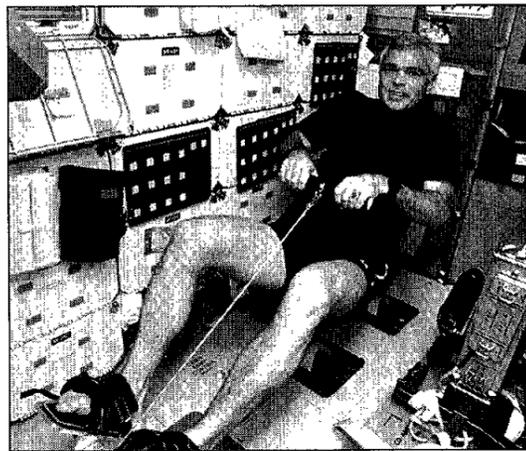
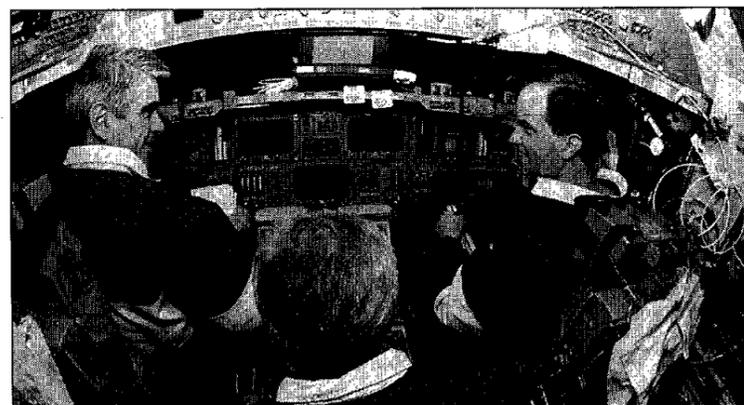
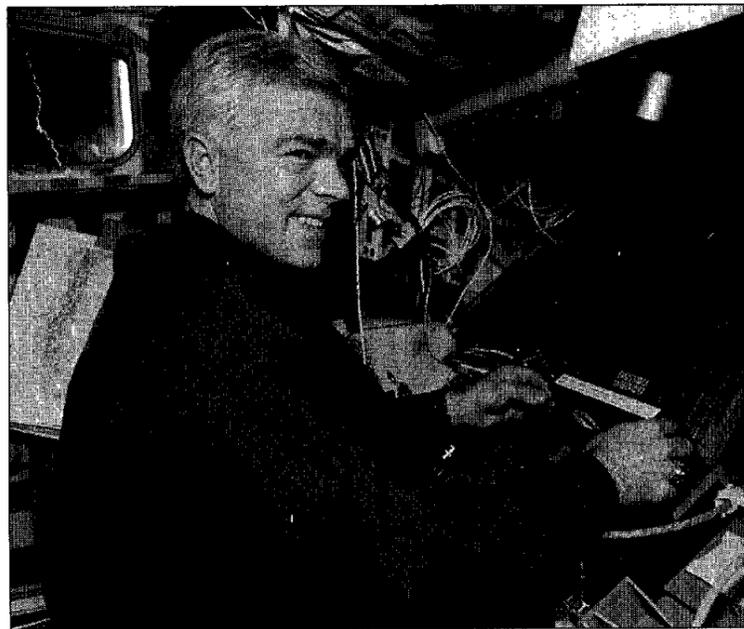
4) Godwin talks with students on Earth through the use of the Shuttle Amateur Radio Experiment equipment. The crew contacted a number of schools, plus a troop of Boy Scouts in Richardson, Texas. Some crew members also used the ham radio to speak with fellow Astronauts Ken Cameron and Bonnie Dunbar, flight surgeon Dave Ward and two cosmonauts in Russia. Apt contacted the current crew of the Russian Mir space station. A total of 1,694 operators from 46 countries contacted the ham station aboard *Endeavour* during STS-59.

5) The bright lights of the big city of New York showed up clearly from *Endeavour's* 120 nautical mile orbit. Scientists studying film from *Endeavour* feel this is the best nocturnal view of this region ever returned by the human space program.

6) Apt uses a handheld 70 mm Hasselblad camera to record some of the 14,000 still photographs that will be used by Space Radar Lab scientists to help interpret their radar data.

7) A 16mm lens on a 35 mm camera provides a rare wide-angle view of three astronauts on *Endeavour's* flight deck during checkout of the spacecraft's flight control systems prior to landing. Gutierrez, left, is in the commander's seat, while Chilton, right, is in the pilot's seat, and Clifford, the flight engineer, is seated behind and between them.

8) Clifford takes care of one of the never-ending duties on the mission — changing the data dates of the payload high rate recorders. Crew members also had to perform regular cleaning of the recorders to keep them functioning properly. □



Office of Space Flight announces personnel changes

Associate Administrator for Space Flight Jeremiah Pearson last week announced key personnel changes in the Office of Space Flight (OSF) at NASA Headquarters.

Effective immediately, Tom Utsman, currently OSF deputy associate administrator, space shuttle, will return to the Kennedy Space Center, to become special assistant to the associate administrator for OSF. Bryan O'Connor, OSF deputy associate administrator will replace Utsman and also serve as space shuttle program director.

Effective May 9, Richard Wisniewski, who retired from NASA in 1990 after a government career spanning 35 years, is returning to NASA to replace Bryan O'Connor as deputy associate administrator, OSF.

Pearson also announced that Michael Mann, OSF deputy associate administrator for management, has been named deputy associate

administrator for management in the Office of Mission to Planet Earth at NASA Headquarters. Wisniewski also will serve as OSF's acting deputy associate administrator for management.

As Space Shuttle Program director, O'Connor will assume responsibility for the management of the Space Shuttle Program. O'Connor, a former NASA astronaut, served as commander of the first Spacelab Life Sciences mission, STS-40, in June 1991, and as pilot on mission 61-B in November 1985. During the period following the *Challenger* accident, O'Connor served as assistant to the Space Shuttle Program manager from March 1986 until February 1988.

O'Connor helped guide the effort that led to the resumption of shuttle flights in September 1988. He is a distinguished Marine Corps pilot and graduate of the U.S. Navy Test Pilot School. He also is a graduate of the

U.S. Naval Academy and earned a Masters of Science degree in Aeronautical Systems from the University of West Florida. O'Connor served as an astronaut from 1980 to 1991.

Utsman will be returning to KSC where he held a number of key positions, including deputy director from August 1985 until his assignment to NASA Headquarters in January 1990.

Utsman's first assignment at NASA Headquarters was deputy associate administrator for space flight for management which he held for approximately six months prior to being named deputy associate administrator in June 1990. He was named space shuttle director in June 1992.

Utsman began his career in 1963 as a facilities design engineer for the Apollo Program. He holds a bachelor of science degree in mechanical engineering from the University of

Michigan and a masters degree in management from Florida State University.

Wisniewski currently is director, Program Analysis Group, General Research Corp., Vienna, Va. His last position at NASA was as the OSF deputy associate administrator for institutions. The OSF deputy associate administrator is responsible for resources, policy and plans, human resources and management of the four Space Flight installations — KSC, JSC, the Marshall Space Flight Center and the Stennis Space Center.

Wisniewski began his career at the Lewis Research Center as an aeronautical research engineer. He was staff scientist for the OSF during the Apollo Program, director of advanced concepts in the former Office of Aeronautics and Space Technology and deputy associate administrator for the center operations in the former Office of

Management, Washington, D.C. Wisniewski has a bachelor of science degree in physics from John Carroll University.

Mann was named OSF deputy associate administrator for management in July 1993. Prior to that, he served as the director of resource management, responsible for managing the OSF's budget. Before joining the OSF, he spent nine years in NASA's Comptrollers Office in a variety of cost analysis and resources management positions including deputy director, Resources Analysis Division. In that position Mann had oversight responsibility for all NASA programs and played a key role in the development of NASA program control and financial management policies.

A U.S. Army veteran, Mann is a graduate of the Virginia Polytechnic Institute with an masters in business administration in Operations Research.

Fellowship participants selected

Seven JSC employees will participate in this year's Fellowship Program which provides them the opportunity to attend graduate school full time for one year on a leave-with-pay basis.

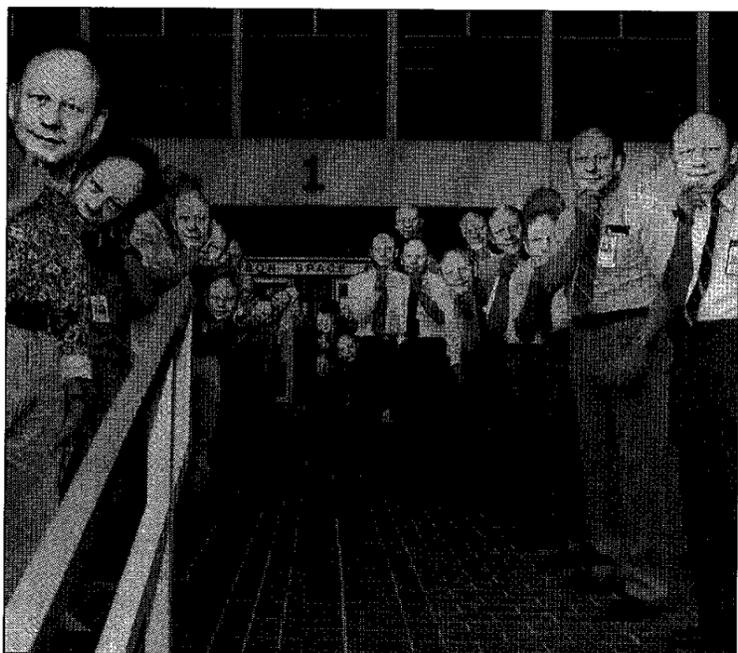
"Advanced academic training is a very effective way to enhance a person's professional growth," said Paige Maulsby, human resources development specialist.

The people selected to receive this year's fellowships are: Linda Ham, Rick Davis, and Debbie Bulgher, all of the Mission Operations Directorate; and Tam Ngo, Julie Kramer, Steve Munday, and Pam Denkins, all of the Engineering Directorate.

Ham will attend the Naval Postgraduate School pursuing a master's degree in space systems operations. Davis will attend the University of Illinois pursuing a master's degree in aerospace engineering, while Bulgher will attend Rice University studying for a doctorate in space physics and astronomy.

Ngo will work toward his master's in intelligent robotic systems software engineering at the University of Texas—Austin. Munday also will attend UT—Austin pursuing a master's degree in aerospace engineering, guidance and control. Kramer will be attending the University of Utah, pursuing a master's degree in mechanical engineering and Denkins will attend Texas Southern University working toward a master's degree in mathematics.

Fellowship candidates are nominated from their organizations. Selection criteria includes the applicability of the chosen area of study and its effectiveness in contributing to achieving JSC's mission and goals; a brief statement of academic purpose from the applicant; prior academic coursework completed; a written recommendation from a division-level chief; and the level of activity in the employee's office and the employee's own workload.



JSC Photo by Robert Markowitz

FACING THE FUTURE — When Larry Bell, manager of the Cargo Engineering Office retired, he walked through a gauntlet of "Larry Bells" as fellow employees donned masks of his face to wish him goodbye. Bell was subsequently whisked away to his retirement in a rocking chair mounted in the back of a pickup truck.

Space Station debates commence in Congress

(Continued from Page 10)

ing cost of \$17.4 billion through the completion of assembly in 2002.

Brinkley said some cost issues between NASA and the prime contractor, Boeing, still remain unresolved, but the program is committed to staying well within the allocations.

"We believe that this is an executable program, but the current funding level is not without major challenges," he said. "All of us in the program believe that if we get through this budget cycle we'll be able to demonstrate, over the next year, our ability to stay on schedule and within the budget."

Members of the House of Representatives are expected to vote on the NASA FY'95 appropriation in late June or early July. The Senate appropriations vote will follow, as will the authorization votes later in the year.

"Passing the House appropriations bill will be a major milestone," Brinkley said. "It's the first test. We anticipate that station opponents will try to cancel the program again this year, but we also believe that this program can withstand the intense scrutiny. I do not believe that this program will fail for any reason internal to the program."

In preparation for this year's debates, the program office already has had an extensive exchange of information with members of Congress and their staffs. Managers also have met with several key independent review groups and have responded to a variety of questions regarding the program. Brinkley characterized the

exchanges with Congressional staffers and various review groups as candid, open and honest.

"There are no issues we haven't addressed in great detail," he said, "and because of this ongoing dialogue I believe we've already answered a lot of the uncertainties and criticisms surrounding the International Space Station."

Among the reviews the program underwent this year was the former Vest Committee which recommended the initial redesign option for the Space Station Program last year. The group met at JSC in March, following the System Design Review, and gave glowing endorsements of the current plan.

Dr. Charles Vest, president of Massachusetts Institute of Technology and committee chairman, said the redesigned program "has progressed to an extent that greatly exceeded my expectation."

"That was certainly a vote of confidence to us that we're heading in the right direction," Brinkley said. "It has increased our credibility with the Congress and the public."

Brinkley attributes the success of the reviews and exchanges to the members of the station program team.

"What has impressed me most since joining the program in January is the dedication and motivation of the people in the program and their commitment to the program," he said. "It's a real catalyst and motivator to me personally."

"I expect the station to be funded for FY'95, and I am convinced that we can build a space station on time and in budget."

Eclipse to shadow Houston

In days of old, it was considered a sign from the gods.

The sun would darken in the middle of the day casting a shadow on the frightened peasants below. It was an omen, a curse or a prophecy of things to come.

Now, the peasants are no longer frightened.

On May 10, they will use telescopes, welders' masks and cardboard to study the phenomena in the sky as the entire United States experiences a solar eclipse.

In the Houston area, the eclipse will begin at 9:51 a.m. when the dark moon's disk will be seen along the upper westward edge of the sun.

At 11:26 a.m. when mid-eclipse occurs, the moon's disk will cover 71 percent of the sun which will be about 62 degrees above the east-southeastern horizon.

Viewers in a narrow band stretching from El Paso to Halifax, Nova Scotia, will see an annular eclipse with the moon directly in front of the sun, covering about 79 percent of its surface. In an annular eclipse, the

moon's disk is smaller than the sun's disk so a ring of sunlight will surround the moon during mid-eclipse. Viewers elsewhere, as in Houston, will see a partial solar eclipse with the dark new moon covering only a portion of the sun.

The eclipse will end at 1:18 p.m. when the moon's disk leaves the sun's face.

The JSC Astronomical Society will set up several telescopes at Space Center Houston for safe viewing of the solar eclipse. The viewing area will be open to all JSC contractors and employees. Contractors may gain free access to the viewing sight by showing their badges at the parking toll booths.

Observers also can use No. 14 welders glass or create a projector by poking a hole in a piece of cardboard or aluminum foil and viewing the image on the ground or a piece of paper.

When observing an eclipse, do not look directly at the sun and never use binoculars or a telescope unless it has a professional solar filter.

Employees recognized for source board activities

More than 20 people recently were recognized for their work on JSC's Source Evaluation Boards.

Director of Procurement Robert Easley presented the awards which recognized the significant contributions each person made to the acquisition process. The source boards were conducted for several major competitive procurements.

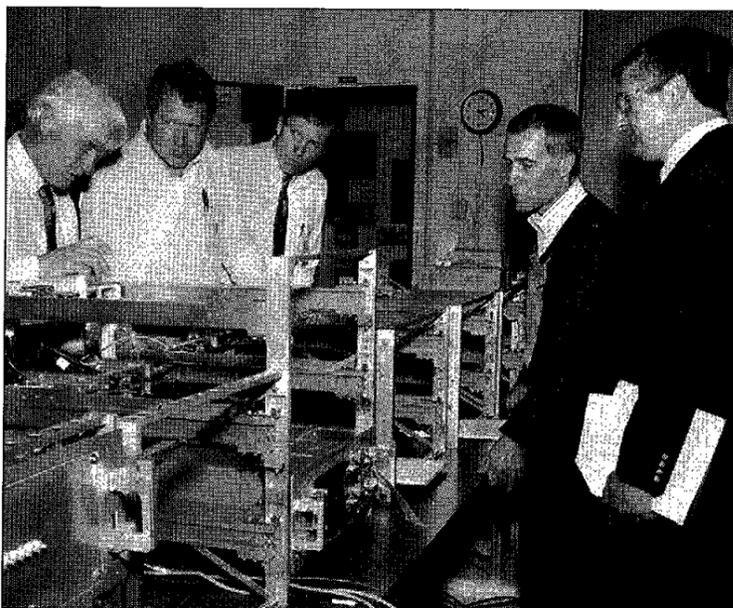
The Source Evaluation Boards receiving awards were the Aircraft Simulation and Information Systems Board, the Construction Support Services Board and the Program Office Support Services Board.

The Aircraft Simulation and Information Systems Board was

chaired by Joseph Tanner. Board members were John Bain, Jr., Larry Bowden, Carol Shaw, Primitivo Perez, Vincent Watkins, Charles Riley, Rosemary Thompson, and Patricia Bomboy.

The Construction Support Services Board was chaired by Ronald Stone. Board members included J. Winston Blackmon, Charles Bell, Chester Reno, and Norman Lamb.

The Program Office Support Services effort was chaired by Tom Logan. Board members include L. O. Corcoran, Charles Howard, Robert Mitchell, Farris Tabor, Susan Lister, and Claranita Haefner.



BOUND FOR MIR—Engineers from NASA and the Russian Space Agency inspect hardware bound for the Mir space station. The equipment is set for launch on the Mir 18 flight in early March 1995. Shuttle astronaut Norm Thagard will be one of the crew members.

Space News Roundup

The Roundup is an official publication of the National Aeronautics and Space Administration, Lyndon B. Johnson Space Center, Houston, Texas, and is published every Friday by the Public Affairs Office for all space center employees.

Dates and Data submissions are due Wednesdays, eight working days before the desired date of publication.

Editor Kelly Humphries
Associate Editor Kari Fluegel
Associate Editor Eileen Hawley